

**CLAIMS**

1. An infrared sensor comprising:  
a semiconductor substrate on which an infrared detecting part is  
formed;

5 an infrared transmissive substrate which is located opposite the  
semiconductor substrate;

an adhesive layer which is partially interposed between the  
semiconductor substrate and the infrared transmissive substrate and  
forms a space between the substrates,

10 wherein the semiconductor substrate has a through hole for  
extracting an electric signal from the infrared detecting part in a position  
opposed to the adhesive layer.

2. The infrared sensor according to claim 1, wherein a deflection  
preventing wall for restraining deflection of the infrared transmissive  
15 substrate to the infrared detecting part side is provided in the space.

3. The infrared sensor according to claim 2, wherein there are a  
plurality of the infrared detecting parts and the deflection preventing  
walls are provided between the infrared detecting parts.

4. The infrared sensor according to claim 1, wherein the infrared  
20 detecting part is formed on a membrane structure formed on the  
semiconductor substrate.

5. The infrared sensor according to claim 1, wherein a vacuum is  
produced in the space between the semiconductor substrate and the  
infrared transmissive substrate via the adhesive layer.

25 6. A method for manufacturing an infrared sensor, comprising the  
steps of:

forming an infrared detecting part on a thin film constituting a part of a membrane planned to be formed on a semiconductor substrate;

forming a hollow part at the lower side of the thin film on which the infrared detecting part is formed to form a membrane structure;

5 partially forming an adhesive layer on at least one of the semiconductor substrate and an infrared transmissive substrate so that a space is formed between the semiconductor substrate and the infrared transmissive substrate, and bonding the infrared transmissive substrate to the semiconductor substrate via the adhesive layer; and

10 forming a through hole in the semiconductor substrate from the opposite side of the semiconductor substrate to the infrared transmissive substrate,

wherein the through hole is formed in a position opposed to the adhesive layer.

15 7. The method for manufacturing the infrared sensor according to claim 6, wherein a dicing line between the infrared sensors is cut after forming the through hole when a plurality of infrared sensors are formed, to separate the infrared sensors into each of the infrared sensors.